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| 10/055,207 | 10/19/2001 | Sachin G. Deshpande | 8371-144 | 5056 |

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| EXAMINER | |
|---|---|
| FOX, JAMAL A | |
| **ART UNIT** | **PAPER NUMBER** |
| 2664 | |

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/055,207 | DESHPANDE, SACHIN G. | |
| | Examiner | Art Unit | |
| | Jamal A. Fox | 2664 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *19 October 2001*.

2a)☐ This action is FINAL. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 April 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *10/19/2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 7-11, 13-18, 21 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Chaddha et al. (U.S. Patent No. 5,768,535).

Referring to claim 1, Chaddha et al. discloses a method for transmitting data over a transmission channel, comprising:

accepting, at an input of a data transmitter (see Fig. 1), data that has been encoded into a base layer (base layer, col. 3 lines 11-22 and 37-52, col. 5 lines 21-30, col. 7 lines 1-15, col. 9 lines 27-45 and col. 10 lines 25-35) and an enhancement layer (enhancement layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29);

transmitting the base layer (base layer, col. 3 lines 11-22 and 37-52, col. 5 lines 21-30, col. 7 lines 1-15, col. 9 lines 27-45 and col. 10 lines 25-35) on the transmission channel;

determining if there is enough bandwidth (bandwidth, col. 3 lines 28-35) available to the data transmitter to transmit data in addition to the base layer (base layer, col. 3 lines 11-22 and 37-52, col. 5 lines 21-30, col. 7 lines 1-15, col. 9 lines 27-45 and col. 10 lines 25-35) already transmitted; and

transmitting the enhancement layer (enhancement layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29) if there is enough bandwidth available to transmit another layer.

Referring to claim 2, Chaddha et al. discloses the method of claim 1 wherein determining if there is enough bandwidth (bandwidth, col. 3 lines 28-35) available to the data transmitter to transmit data in addition to the base layer comprises calculating a bandwidth (bandwidth, col. 6 lines 45-50) previously used by the data transmitter in previously transmitting layers.

Referring to claim 3, Chaddha et al. discloses the method according to claim 1 wherein determining if there is enough bandwidth (bandwidth, col. 3 lines 28-35) available to the data transmitter to transmit data in addition to the base layer (base layer, col. 3 lines 11-22 and 37-52, col. 5 lines 21-30, col. 7 lines 1-15, col. 9 lines 27-45 and col. 10 lines 25-35) comprises measuring data traffic on the transmission channel (channel, col. 10 lines 25-34) to determine if enough bandwidth exists to transmit additional layers.

Referring to claim 7, Chaddha et al. discloses the method according to claim 1 wherein the data transmitter has a pre-set maximum transmission rate, and wherein the data transmitter ensures (as needed, col. 4 lines 16-23) that its rate (rate, col. 13 lines 3-14) of transmitting data is below the pre-set maximum transmission rate.

Referring to claim 8, Chaddha et al. discloses the method according to claim 1 wherein the data is additionally encoded as a second enhancement layer (enhancement

layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29), the method further comprising:

determining if there is enough bandwidth (bandwidth, col. 3 lines 28-35) available to the data transmitter to transmit data in addition to the base and enhancement layers (enhancement layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29) already transmitted by the data transmitter; and

transmitting the second enhancement layer (enhancement layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29) if there is enough bandwidth (bandwidth, col. 3 lines 28-35) available to transmit the second enhancement layer (enhancement layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29).

Referring to claim 9, Chaddha et al. discloses the method according to claim 1 wherein transmitting the base layer on the transmission channel comprises transmitting the base layer (base layer, col. 3 lines 11-22 and 37-52, col. 5 lines 21-30, col. 7 lines 1-15, col. 9 lines 27-45 and col. 10 lines 25-35) on a LAN (see Network, Fig. 1) connection between two or more computers.

Referring to claim 10, Chaddha et al. discloses the method according to claim 1 wherein transmitting the base layer on the transmission channel comprises transmitting data from a media server to an image projector (Fig. 1 ref. sign 180 and respective portions of the spec.).

Referring to claim 11, Chaddha et al. discloses the method according to claim 1 wherein transmitting the base layer on the transmission channel comprises transmitting

data from a media server to a decoding device (decoder, Fig. 1 ref. sign 40 and respective portions of the spec.).

Referring to claim 13, Chaddha et al. discloses a multi-layer data transmission system, comprising:

a transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) having a first data input configured to accept an encoded base layer (base layer, col. 3 lines 11-22 and 37-52, col. 5 lines 21-30, col. 7 lines 1-15, col. 9 lines 27-45 and col. 10 lines 25-35) of data and an enhancement layer (enhancement layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29) of data, and the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) having an output terminal (see Fig. 1); and

a scheduling (schedule, col. 8 lines 17-27) operation controlling the transmission scheduler and configured to cause the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) to send the base layer (base layer, col. 3 lines 11-22 and 37-52, col. 5 lines 21-30, col. 7 lines 1-15, col. 9 lines 27-45 and col. 10 lines 25-35) of data from the output terminal of the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) when it is received, and configured to determine if there is enough bandwidth (bandwidth, col. 3 lines 28-35) to send the enhancement layer of data.

Referring to claim 14, Chaddha et al. discloses a data transmission system according to claim 13 wherein the scheduling operation is also configured to send the enhancement layer (enhancement layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line

1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29) of data from the output terminal of the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) if there is enough bandwidth (bandwidth, col. 3 lines 28-35) to do so.

Referring to claim 15, Chaddha et al. discloses the data transmission system according to claim 14, wherein there is enough bandwidth (bandwidth, col. 3 lines 28-35) to send the enhancement layer if an average data transmission rate (data rate, col. 8 lines 55-61, col. 11 lines 50-55 and col. 13 lines 1-10) of the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) is less than a predetermined rate.

Referring to claim 16, Chaddha et al. discloses the data transmission system according to claim 14, wherein there is enough bandwidth (bandwidth, col. 3 lines 28-35) to send the enhancement layer (enhancement layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29) if there is available bandwidth (bandwidth, col. 6 lines 45-50) on a transmission channel (channel, col. 10 lines 25-34) coupled to the output terminal of the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.).

Referring to claim 17, Chaddha et al. discloses a data transmission system, comprising:

an encoder (Fig. 1 ref. sign 60 and respective portions of the spec.) having an output for receiving a data stream and configured to encode the data stream into a base layer (base layer, col. 3 lines 11-22 and 37-52, col. 5 lines 21-30, col. 7 lines 1-15, col. 9 lines 27-45 and col. 10 lines 25-35) and at least one enhancement layer (enhancement

layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29);

a transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) coupled to the encoder (Fig. 1 ref. sign 60 and respective portions of the spec.) and having an input terminal to accept the encoded layers of data, and having an output terminal coupled to a transmission channel (channel col. 10 lines 22-29 and 60-65);

a scheduling (schedule, col. 8 lines 17-27) operation running on the transmission scheduler and configured to signal the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) to send the base layer (base layer, col. 3 lines 11-22 and 37-52, col. 5 lines 21-30, col. 7 lines 1-15, col. 9 lines 27-45 and col. 10 lines 25-35) of data from the output terminal of the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) after it is received, and configured to determine the bandwidth (bandwidth, col. 3 lines 28-35) used by the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) sending the base layer (base layer, col. 3 lines 11-22 and 37-52, col. 5 lines 21-30, col. 7 lines 1-15, col. 9 lines 27-45 and col. 10 lines 25-35); and

a decoder (Fig. 1 ref. sign 40 and respective portions of the spec.) coupled to the transmission channel and configured to generate an image (image, col. 9 lines 36-43) on a display (display, col. 1 lines 60-65 and col. 9 lines 36-43; displaying, col. 10 lines 3-9) based on the encoded layers of data received from the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.).

Referring to claim 18, Chaddha et al. discloses the data transmission system of claim 17 wherein the scheduling operation is configured to determine whether there is enough bandwidth (bandwidth, col. 3 lines 28-35) available to the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) to send a first of the at least one enhancement layers (enhancement layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29) from the output terminal of the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.).

Referring to claim 21, Chaddha et al. discloses the data transmission system of claim 17 wherein the scheduling operation is configured to determine whether there is enough bandwidth (bandwidth, col. 3 lines 28-35) available to the transmission scheduler to send a first and a second of the at least one enhancement layers (enhancement layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29) from the output terminal of the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.).

Referring to claim 22, Chaddha et al. discloses the data transmission system of claim 21 wherein the scheduling operation is configured to determine whether there is enough bandwidth (bandwidth, col. 3 lines 28-35) available to the transmission scheduler to send the first of the at least one enhancement layers (enhancement layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29) from the output terminal of the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) prior to determining whether there is enough

bandwidth (bandwidth, col. 3 lines 28-35) available to the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) to send the second of the at least one enhancement layers (enhancement layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29).

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Jiang (U.S. Patent Application Pub. No. 2002/0118743).

Referring to claim 1, Jiang discloses a method for transmitting data over a transmission channel (Fig. 3 ref. sign 78 and respective portions of the spec.), comprising:

accepting, at an input of a data transmitter (Fig. 3 ref. sign 76 and respective portions of the spec.), data that has been encoded into a base layer (base layer, [0006]) and an enhancement layer;

transmitting the base layer (base layer, [0006]) on the transmission channel;

determining if there is enough bandwidth (bandwidth, [0006]) available to the data transmitter to transmit data in addition to the base layer already transmitted (transmitted, [0006]); and

transmitting the enhancement layer (enhancement layer, [0006]) if there is enough bandwidth available to transmit another layer.

5. Claim 17 is rejected under 35 U.S.C. 102(e) as being anticipated by Parkkinen et al. (U.S. Patent Application Pub. No. 2003/0206558).

Referring to claim 17, Parkkinen et al. discloses a data transmission system, comprising:

an encoder (Fig. 5 ref. signs 210 and 230 and respective portions of the spec.) having an output for receiving a data stream and configured to encode the data stream into a base layer and at least one enhancement layer;

a transmission scheduler (Fig. 5 ref. sign 421 and 422 and respective portions of the spec.) coupled to the encoder and having an input terminal to accept the encoded layers of data, and having an output terminal coupled to a transmission channel;

a scheduling operation (adjust the target bit-rate, [0055]) running on the transmission scheduler and configured to signal the transmission scheduler to send the base layer of data from the output terminal of the transmission scheduler after it is received, and configured to determine the bandwidth used by the transmission scheduler sending the base layer; and

a decoder (Fig. 5 ref. sign 220 and respective portions of the spec.) coupled to the transmission channel (channel, [0005]) and configured to generate an image on a

display (display, [0073] and [0078]) based on the encoded layers of data received from the transmission scheduler.

6. Claim 17 is rejected under 35 U.S.C. 102(e) as being anticipated by Van Der Vleuten et al. (U.S. Patent Application Pub. No. 2002/0076043).

Referring to claim 17, Van Der Vleuten et al. discloses a data transmission system, comprising:

an encoder (Fig. 1 ref. sign 12 and respective portions of the spec.) having an output for receiving a data stream and configured to encode the data stream into a base layer and at least one enhancement layer;

a transmission scheduler (Fig. 1 ref. signs 3 and 4 and respective portions of the spec.) coupled to the encoder (Fig. 1 ref. sign 12 and respective portions of the spec.) and having an input terminal to accept the encoded layers of data, and having an output terminal coupled to a transmission channel;

a scheduling operation (rate control, [0032]) running on the transmission scheduler and configured to signal the transmission scheduler to send the base layer of data from the output terminal of the transmission scheduler after it is received, and configured to determine the bandwidth used by the transmission scheduler sending the base layer; and

a decoder (Fig. 1 ref. sign 5; decoder [0023] and [0024]) coupled to the transmission channel and configured to generate an image on a display based on the encoded layers of data received from the transmission scheduler.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 4-6, 12, 15, 16, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaddha et al.

Referring to claim 4, Chaddha et al. discloses the method of claim 1 wherein the data transmitter has a pre-set target data rate (data rate, col. 8 lines 55-61, col. 11 lines 50-55 and col. 13 lines 1-10), and wherein if there is enough bandwidth (bandwidth, col. 3 lines 28-35) available to the data transmitter to transmit data in addition to the base layer (base layer, col. 3 lines 11-22 and 37-52, col. 5 lines 21-30, col. 7 lines 1-15, col. 9 lines 27-45 and col. 10 lines 25-35) already transmitted comprises determining whether a bandwidth (bandwidth, col. 6 lines 45-50) used by the data transmitter over a last measuring period is below the pre-set target data rate (data rate, col. 8 lines 55-61, col. 11 lines 50-55 and col. 13 lines 1-10), but does not explicitly teach of the determining whether an average bandwidth is used. However, Chaddha et al. teaches of bandwidth scalability dynamic range in (col. 3 lines 23-36). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included an average bandwidth to the invention of Chaddha et al. in order to aid in the prioritization and to provide an end-to-end scalable video delivery service to the user as suggested by Chaddha et al (col. 3 lines 23-36).

Referring to claim 5, Chaddha et al. discloses the method of claim 4 wherein the last measuring (measure, col. 8 lines 17-27 and col. 11 lines 28-33) period is a period of time.

Referring to claim 6, Chaddha et al. discloses the method of claim 4, wherein the last measuring period is a period in which a predetermined number of pieces of data have been transmitted over the transmission channel (channel, col. 10 lines 25-34) by the data transmitter.

Referring to claim 12, Chaddha et al. discloses the method of claim 1 wherein determining if there is enough bandwidth (bandwidth, col. 3 lines 28-35) available to the data transmitter to transmit data in addition to the base layer (base layer, col. 3 lines 11-22 and 37-52, col. 5 lines 21-30, col. 7 lines 1-15, col. 9 lines 27-45 and col. 10 lines 25-35) already transmitted, but fails to teach of the method comprising calculating at least two average bandwidths used by the data transmitter, each of the average bandwidths calculated over different measuring periods. However, Chaddha et al. teaches of bandwidth scalability dynamic range in (col. 3 lines 23-36). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included calculating at least two average bandwidths to the invention of Chaddha et al. in order to aid in the prioritization and to provide an end-to-end scalable video delivery service to the user as suggested by Chaddha et al (col. 3 lines 23-36).

Referring to claim 15, Chaddha et al. discloses the data transmission system according to claim 14, wherein there is enough bandwidth (bandwidth, col. 3 lines 28-35) to send the enhancement layer if a data transmission rate (data rate, col. 8 lines 55-

61, col. 11 lines 50-55 and col. 13 lines 1-10) of the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) is less than a predetermined rate, but fails to explicitly teach of the data transmission rate being average. However, Chaddha et al. teaches of bandwidth scalability dynamic range in (col. 3 lines 23-36). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the data transmission rate being average to the invention of Chaddha et al. in order to aid in the prioritization and to provide an end-to-end scalable video delivery service to the user as suggested by Chaddha et al (col. 3 lines 23-36).

Referring to claim 16, Chaddha et al. discloses the data transmission system according to claim 14, wherein there is enough bandwidth (bandwidth, col. 3 lines 28-35) to send the enhancement layer (enhancement layer, col. 3 lines 11-22, col. 3 lines 36-52, col. 5 line 1 and 22-29, col. 9 lines 27-43 and col. 10 lines 17-29) if there is available bandwidth (bandwidth, col. 6 lines 45-50) on a transmission channel (channel, col. 10 lines 25-34) coupled to the output terminal of the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.).

Referring to claim 19, Chaddha et al. discloses the data transmission system of claim 18 wherein the scheduling operation is configured to determine there is enough bandwidth (bandwidth, col. 3 lines 28-35) available to the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) when a bandwidth (bandwidth, col. 6 lines 45-50) rate used by the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) is less than a target bandwidth rate, but fails to explicitly teach of an average bandwidth rate being used by the scheduler. However, Chaddha et al.

teaches of bandwidth scalability dynamic range in (col. 3 lines 23-36). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included an average bandwidth rate being used by the scheduler to the invention of Chaddha et al. in order to aid in the prioritization and to provide an end-to-end scalable video delivery service to the user as suggested by Chaddha et al (col. 3 lines 23-36).

Referring to claim 20, Chaddha et al. discloses the data transmission system of claim 18 wherein the scheduling operation is configured to determine there is enough bandwidth (bandwidth, col. 3 lines 28-35) available to the transmission scheduler (Fig. 1 ref. sign 20 and respective portions of the spec.) when an instantaneous bandwidth rate on the transmission channel (channel, col. 10 lines 25-34) is below a predetermined rate.

***Conclusion***

9. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

**or faxed to:**

(571) 273-8300, (for formal communications intended for entry)

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamal A. Fox whose telephone number is (571) 272-3143. The examiner can normally be reached on Monday-Friday 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to 2600 Customer Service whose telephone number is (571) 272-2600.

Jamal A. Fox

WELLINGTON CHIN
RVISORY PATENT EXAMIN